CLAIMS:

1. Information carrier comprising a integrated circuit (1) representing a physical unclonable function comprising:

- an input means (7) for receiving a challenge signal for challenging said integrated circuit (1),
- a response signal providing means (2) for providing a response data signal in response to said challenge data signal,
- an output means (8) for outputting said response data signal, and
- a delay means (3, 5, 9-12) for delaying and/or prohibiting the provision and/or the output of said response data signal.

2. Information carrier as claimed in claim 1, characterized in that said response signal providing means comprise a memory (2) for storing pairs of challenge data and associated response data.

3. Information carrier as claimed in claim 1, characterized in that said response signal providing means (2) comprise a response signal generation means (13), in particular an encryption unit, for generating a response data signal in response to a challenge data signal.

4. Information carrier as claimed in claim 1, characterized in that said delay means comprise a noise source (3) for adding a noise signal to the response signal provided by said response signal providing means (2).

5. Information carrier as claimed in claim 1, characterized in that said delay means comprise a noisy read-out means, in particular a noisy read-out amplifier for amplifying the response signal provided by said response signal providing means (2).

6. Information carrier as claimed in claim 1, characterized in that said delay means comprise limiting means (9-12) for restricting the number of response data signals provided and/or outputted per time unit.

7. Information carrier as claimed in claim 6, characterized in that said limiting means comprise means (9-12) for limiting the amount of power available per time unit.

8. Information carrier as claimed in claim 1, characterized in that said delay means comprise a counter means (14) for limiting the number of responses, in particular the total number of responses or the number of times the response to a given challenge can be provided, of said integrated circuit (1).

9. Integrated circuit (1) representing a physical unclonable function, in particular for use in an information carrier, comprising:

- an input means (7) for receiving a challenge signal for challenging said integrated circuit (1),
- a response signal providing means (2) for providing a response data signal in response to said challenge data signal,
- an output means (8) for outputting said response data signal, and
- a delay means (3, 5, 9-12) for delaying and/or prohibiting the provision and/or the output of said response data signal.

10. Method of providing a physical unclonable function comprising the steps of:

- receiving a challenge signal for challenging said integrated circuit (1),
- providing a response data signal in response to said challenge data signal,
- outputting said response data signal, and
- delaying and/or prohibiting the provision and/or the output of said response data signal.

11. Computer program comprising program code means for causing a computer to carry out the steps of the method as claimed in claim 10 when said computer program is run on a computer.